

Chapter 6 Study Guide

Complete each statement about quadrilateral WXYZ. Then name the property that justifies your answer.

1. $\angle WZY \cong$ _____

2. $\overline{WX} \cong$ _____

3. $\overline{XE} \cong$ _____

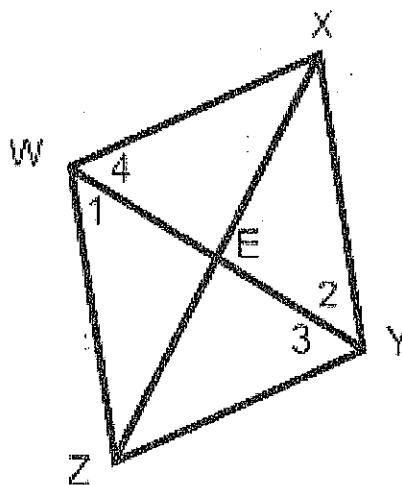
4. $\overline{XY} \cong$ _____

5. $\triangle XYZ \cong$ _____

6. $\angle 1 \cong$ _____

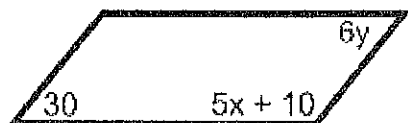
7. $\overline{YE} \cong$ _____

8. $\angle WZY$ and _____ are supplementary.

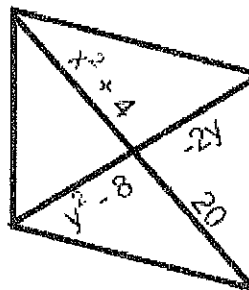


Find the values of x and y that ensure each quadrilateral is a parallelogram.

9.



10.



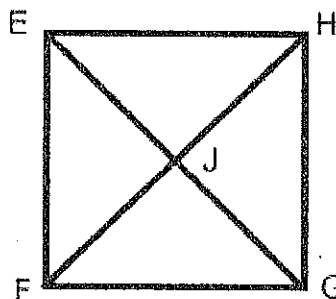
Quadrilateral EFGH is a rectangle. Find the value of x .

11. $m\angle HEG = 12x + 1$
 $m\angle GEF = 6x - 1$

12. $HF = 5x - 4$
 $EG = 6x - 10$

13. $JF = 8x + 4$
 $EG = 24x - 8$

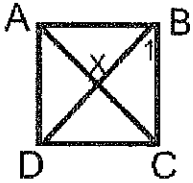
14. $EF = x^2$
 $HG = 3x - 2$



Determine whether quadrilateral KLMN is a parallelogram, a rectangle, a rhombus, or a square for each set of vertices. List all that apply.

15. $K(4, 8), L(0, 9), M(-2, 1), N(2, 0)$

In square ABCD, find



16. $m\angle AXB =$

17. $m\angle 1 = 11x - 10$
 $x =$

18. $AX = 5$
 $DX =$
 $AD =$

Use rhombus PQRS and the given information to find each value.

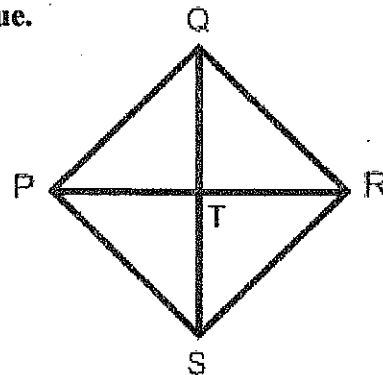
19. If $PT = 14$, find PR .

20. If $m\angle PQT = 34$, find $m\angle PQR$.

21. What is $m\angle STP$?

22. If $RQ = 4x - 1$ and
 $PQ = 20 + x$, find the value of x .

23. Find the values of x and y if
 $PT = 4x - 1$, $TS = 6y - 9$,
 $QT = 16 - 2x$, and $TS = 3y + 9$



STUV is a trapezoid with bases ST and UV . Use the figure and the given information to solve each problem.

24. If $m\angle STV = 45$, find $m\angle UVT$.

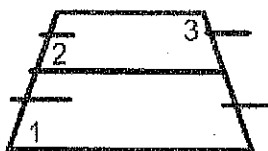
25. If $m\angle TSW = 35$, find $m\angle SUV$.

26. If $m\angle SUV = 47$, find $m\angle TSU$.

27. What is the measure of the median of STUV if $ST = 23$ and $UV = 19$?

28. If $m\angle WUV = 23$ and $m\angle TWS = 127$,
find $m\angle WWU$.

29.



$m\angle 1 = 65$
 $m\angle 2 =$
 $m\angle 3 =$

30. $x = ?$

